

REMARKS

In responding to the outstanding Office Action, a number of the claims have been amended for grammatical reasons so as to obviate various objections. None of these amendments effect the scope of their respective claims. Other claims, which have been objected to by the Examiner, namely, claim 17 and claim 23 have been rewritten in independent form and should now be allowable.

The rejection of claims 1-5, 13-16, 22, 29-38, 57 and 60-65 as allegedly anticipated by the disclosure of Finn et al. U.S. patent 6,728,205 as discussed below is not in keeping with the requirements for anticipation. As further described below, all of those claims are allowable over Finn et al.

Embodiments of the present invention are advantageous in that they incorporate, as a result of the present method, a dual-homed cover which includes one or more dual-homed cycles or rings. Each location on the network being designed which is capable of being bi-connected is included in at least one member of the one or more dual-homed rings or cycles.

The standard for anticipation has been set forth in MPEP § 2131, page 2100-73 (MPEP, 8th Ed., Rev. 2 of May 2004) as set forth below:

"The identical invention must be shown in as complete detail as is contained in the...claim...the elements must be arranged as required by the claim."

As explained below, the anticipation rejections do not comply with the above standard. The words of the rejected claims in many instances appear to have been ignored or not

considered in the Examiner's expression in the Office Action as to why to the respective claim is allegedly anticipated by the applied prior art patent.

Finn et al. discloses a process and system whereby redundant trees, see Fig. 2A, 2B thereof are defined which result in a plurality of arcs, see FIG. 4, 4A, 4B, 5, 5A, 5B of Finn et al. none of which qualifies as dual-homed cycles which are incorporated into the dual-homed cover of embodiments of the present invention. Finn et al. instead of anticipating, clearly teaches away from the present invention. In this regard, and by way of example only, Finn et al. expressly teaches away from methods and structures as claimed wherein it states:

"Furthermore, placing constraints on possible network topologies may result in increase network cost. For example, a ring topology may be used in a particular application to implement APS. [Automatic Protection Switching] The ring technology, however, may not be the most cost effect technology for the application. This results in a relatively expensive network.

"It would therefore, be desirable to provide a system which allows APS over any arbitrary network topology." (Col. 3, lines 16-23, Finn et al.)

As the above makes clear, Finn et al. teaches a different type of network structure. They go on to state:

"It would, therefore, be desirable to provide a network having a redundant tree topology in which such re-connection is possible for both link and node failures. It would also be desirable to provide a means for constructing tree topology on any node or edge redundant network so that failure of node or edge does not disconnect any node from the network." (Col. 4, lines 48-54, Finn et al.)

Finn et al. further teaches away from the claimed structures and methods wherein they state:

"In view of the above problems and limitations of existing self-healing schemes and in accordance with the present invention, it has been recognized that combining the need for self-healing networks with the usefulness and desirability of performing multicasting and/or incasting operations in mesh and other networks leads to the problem of self healing networks having a logical

tree topology. As described herein, a tree topology refers to a topology having no cycles and in which every node has single incoming directed arc and in which all nodes are connected to a root node." (Col. 5 lines 51-62, Finn et al. emphasis ours)

The non-cyclic emphasis in Finn et al. which focuses on redundant tree structures and arcs is further brought out wherein they state:

"The apparatus further includes means for constructing a first and second set of arcs, each of the arcs in the first set connecting an upstream node and a downstream node with the upstream node having a node value which is greater than the node value of the downstream node and each of the arcs in the second set connecting an upstream node and a downstream node with the upstream node having a node value which is less than a node value of the downstream node." (Col. 6, lines 56-64, Finn et al.)

The arcuate structure of the Finn et al. networks is clearly illustrated in FIGS. 4, 4A, 4B, 5, 5A and 5B. In each of those instances, a single ring is combined with one or more incomplete partial rings or arcs. Such structures are quite unlike and do not anticipate the methodology and structures of the claimed invention.

In rejecting the above-identified claims as anticipated the Examiner attempted on page 3 of the Office Action to provide a rational for rejecting those claims as anticipated by arguing that Finn et al. teaches:

"determining a dual homed cover (e.g., graph see col. 18 line 55- col. 22 line 33) including one more dual homed cycles (e.g., directed cycle)."

The above fails to accurately state the structure and methodology of Finn et al. which clearly teaches away from the above and directs one of ordinary skill in the art toward networks incorporating redundant tree structures implemented with arcs as illustrated in FIGS. 4 and 5 of Finn et al. as discussed above. The portions of Finn et al. cited by the Examiner do not support the above assertion but rather provide further evidence of teaching away from the claimed

inventions thereby illustrating a lack of anticipation. More particularly, Col. 18, lines 55-64, of Finn et al. state:

"Referring now to FIGS. 3-3B, a series of flow diagrams illustrating the processing to be performed to compute a pair of redundant trees for a network which is node redundant are shown. As used herein, the phrase "node redundant network" refers to a network in which elimination of any single node does not totally inhibit communication with any other node in the network among remaining nodes. The processing shown in FIGS. 3-3B can be performed to identify tree structures in an existing network or alternatively the processing can be performed to plan a network not yet in existence."

With reference to the methodology of FIGS. 3-3B referred to above it is significantly unlike the claimed structures and methodologies. FIG. 3 of Finn et al. couples a single cycle, see step 52 thereof with a plurality of arcs see steps 60-62 as is consistent with FIGS. 4, 4A, 4B, 5, 5A and 5B. This a process and methodology which is contraindicative of and teaches away from the Examiner's conclusion that Finn et al. carries out a process which includes:

"determining a dual homed cover (e.g., graph, see col. 18, line 55 - col. 22, line 33) including one or more dual homed cycles" (Office Action page 3).

Thus for at least the above reasons none of claims 1-5, 13-16, 22, 29-38, 57 and 60-65 are anticipated by Finn et al. To summarize, anticipation requires that the alleged anticipatory document disclose all of the limitations of a respective claim exactly as set forth in the claim. Clearly this is not the case with Finn et al. It is different from and does not anticipate any of claims 1-5, 13-16, 22, 29-38, 57 and 60-65.

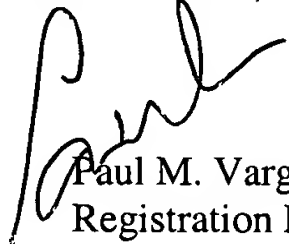
The remaining claims have been rejected as obvious and unpatentable based on a variety of theories by the Examiner. However, the defective nature of Finn et al. pervades all of those rejections since in each instance Finn et al. has been relied on as the primary document which would have to be modified to establish a *prima facie* case of obviousness. Once again, the

arcuately based graphs illustrated in FIGS. 4, 4A, 4, 5, 5A and 5B make it clear that Finn et al. is clearly teaching away from structures and methods in accordance with the present invention. No suggestion, motivation or teaching has been identified by the Examiner in the obviousness rejections which would motivate one of skill in the art to modify Finn et al. so as to make obvious any of those claims. It is requested that the obvious rejection be withdrawn as defective and inappropriate.

For at least the above reasons the pending claims are all allowable. Allowance of the application is respectfully requested.

Respectfully submitted,

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